

HEYROVSKY, Jaroslav, dr., akademik, nositel Nobelovy ceny; JANAK, Jaroslav, inz.; WOLF, Milos Bohuslav, dr.; KEIL, Borivoj, Dr.Sc., laureat statni ceny; KOSSLER, Ivo, dr.

Observations of our famous collaborators on making new laboratory instruments. Tech praca 14 no.8:655-664 Ag '62.

1. Ceskoslovenska akademie ved (for Janak and Kossler).

KOSSLER, Ivo

1. "The Chemistry of Transition Elements," Miroslav ŠRIVÁTEK, of the Institute of Inorganic Chemistry (originally published in German version in 1957; Czech, transl. and Hirščová 1959), formerly of the A. Janáček Faculty of Masaryk University, Brno; present address: Institute of Chemical Technology, Prague.
  2. "Turbid Reactions in Analytical Chemistry," by Z. J. I. pp. 359-371.
  3. "Application of Organic Reagents in Accelerating Reactions of Certain Metal Elements," P. ŽURKA [affiliation not given], pp. 373-379.
  4. "Determination of the Permeability of Polyacrylate Membrane," Josef BUDÍČEK and Bohumil ŠAFER, of the Polymer Institute (Czechoslovak Academy of Sciences) Polymer Research Institute (Czechoslovak Academy of Sciences) Prague, pp. 379-382.
  5. "Measurement of the Efficiency of Protection Pending Agents," František ŠAFER, of the Czechoslovak Institute of Technology, Prague, pp. 383-389.
  6. "Fluorimetric Tests for Trace Small Quantities of Polluted Liquids," Petr ŠELENÝ, Czechoslovak Institute (Biology and Medicine Faculty) pp. 391-397.
  7. "Cells for the Mass Spectrometric Analysis of Organic Compounds," Vojtěch ŠIBÍŘEK and František ŠAFER, of the U-10 Institute of Physical Chemistry (Czechoslovak Academy of Sciences) Prague, pp. 399-403.
  8. Biologics, pp. 399-405.
  9. Book reviews; pp. 406-413.
  10. "Book Publishing, Part III. Forms of Publications," J. ŠELENÝ and K. ŘEŠOVÁ [affiliation not given], pp. 414-417.
  11. "Comments on the Publishing of Biochemistry at the National Sciences Faculties," L. KERLÍK [affiliation not given], pp. 417-420.
  12. "The 1959 Nobel Prize for Chemistry," J. ŠELENÝ [affiliation not given], p. 421.
  13. "Report on the 24 November 1959 Session of the Central Committee of the Czechoslovak Chemical Society within the ČAV," unsigned; pp. 422-423.

1/2

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825130007-5"

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KOSSLER I.; NOVOBILSKY, V.

CSFR

Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague,  
and Dept. of Physical Chemistry, Charles University, Prague (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 3, 1963,  
pp 578-584.

"Ultrasonic Degradation of Polychloroprene Aged in Air"

(2)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825130007-5"

Selection of extraction agents for isoprene rectification. Chem  
prum 13 no.10:513-516 0 '63.

1. Ustav fyzikalni chemie, Ceskoslovenska akademie ved, Praha.

STOLKA, M.; VODEHNAL, J.; KOSSLER, I.

Preparation of 3,4-polyisoprene and its infrared spectrum.  
Coll Cz Chem 28 no.6:1535-1540 Je '63.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

KOSSUTH, L.; VOLKOVSKY, J.

Infrared analysis of polycaprone. Pt. 1-2. Coll. Cz Chem  
29 no. 10:2419-2435 O '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of  
Sciences, Prague.

KRAUT, E., FÖSSLER, J.

Infrared analysis of polysoprene. Pt.3. Chem Cs Chem 29  
no.11;2859-2862 N '64.

I. Institute of Physical Chemistry of the Czechoslovak  
Academy of Sciences, Prague.

KOSSLER, I.

"Infrared spectroscopy and molecular structure" by Marcel Davies,  
Reviewed by I.Kossler. Chem prum 15 no.4:255 Ap '65.

1. Institute of Physical Chemistry of the Czechoslovak Academy  
of Sciences, Prague.

(3)

CZECHOSLOVAKIA

STEPAN, V; VODEHNAL, J; KOSSLER, I; GAYLORD, N.G

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague - (for Stepan, Vodehnal and Kossler). 2: Gaylord Associates Inc., Newark, U.S.A - (for Gaylord)

Prague, Collection of Czechoslovak Chemical Communications, No 7, July 1966, pp 2878-2888

"Cyclo- and cyclized diene polymers. Part 6: Infra-red spectra of cyclopolycyclopentadiene and polycyclopentadienes."

KÖSSLER, M.

Kössler, M. Asymptotic expansions for the functions  $\zeta(s)$ .  
 Komplexe II. Tridy České Akad. 51, no. 32,  
 10 pp. (1941). (Czech)

The author gives asymptotic expansions for

$$\zeta(2r+1) = \sum_{n=0}^{\infty} x^{-n-1}, \quad \zeta(2r) = \sum_{n=0}^{\infty} (-1)^n (2n+1)^{-r}.$$

( $r$  a positive integer). They are based on asymptotic expansions for  $\zeta(s)$  and  $\zeta'(s)$ . For example, let  $N > 0$ ,  $K \geq 0$

be integers,  $0 \leq k \leq K$ . Then

$$\begin{aligned} & + \sum_{k=0}^K (-1)^{k+r} \sum_{n=0}^r \binom{r}{n} (N+\frac{1}{2})^{r-n-k} R(N, \frac{1}{2}) \\ & \text{where} \\ & 2\pi^{-k} (2k+2) \Gamma(1-k) R(N, \frac{1}{2}) \\ & = (-1)^{k+r+1} E_{r+1} \int_0^\infty e^{-\beta x} x^{k+r+1} \theta(\frac{x}{N}) dx. \end{aligned}$$

( $0 < \theta(x) \leq 1$ ;  $E_r$  Euler's numbers). For  $r = 2k+1$  the left side is zero and it is necessary to calculate the derivative in order to obtain  $\zeta(2k+1)$ . Some of the asymptotic formulae also lead to exact formulae (for  $N \rightarrow \infty$ ) which are analogous to Wallis's and Stirling's formulae, e.g.

$$\frac{1}{4\pi^2} \zeta(3) = \lim_{N \rightarrow \infty} \log \frac{\exp \left[ \frac{1}{4\pi^2} \pi^2 (N-1)(2N-1) \log N + \frac{1}{4\pi^2} \right]}{\exp \left[ \frac{1}{4\pi^2} \pi^2 (N-1)(2N-1) \log N + \frac{1}{4\pi^2} \right]},$$

V. Janák (Prague)

Source: Mathematical Reviews,

Vol. 10, No. 2

Kossler M.

Košler, Miloš. "The signification of the number  $\pi$  in the theory of power series." *Věstn. Čes. Mat. Fys.* 14, 47-53 (1949). (Czech, English summary.)

The author deduces a series of theorems which are important for power series. One of them, which concerns the radius of convergence, is the following: Using the smallest zero of  $\sum a_n x^n$  and  $\sum a_n y^n$ , the result is generalized in a significant way. Further, a best possible lower bound is given for the radius of the inverse series and of the circle in which the given function is analytic.

František Wolf (Berkeley, Calif.).

Source: Mathematical Reviews,

Vol. 11 No. 9

2

81

KOSSLER, M.

"Simple polynomials" p. 5 (Casopis Pro Pestovani Matematiky. Czechoslovak Mathematical Journal, Vol. 1, No. 1, Sept. 1951, Praha)

SO: Monthly List of East European Accessions, Vol 3, No 3, Library of Congress, Jun 54 Uncr

*Kössler, Milos*

Kössler, Milos. Simple polynomials. Czechoslovak Math. J. 1(76), 5-15 (1951) =

(1951).

For a polynomial  $P(z)$  consider the associated system

$$1 + \sum a_k z^{k-1} P_{k-1}(u) = 0$$

where

$$P_{k-1}(u) = \sum_{j=0}^{k-1} C_j u^j$$

(1.1)  $R(u) = \sum a_k u^k$  is the resultant of the associated system. It is shown that  $R(u) > 1$ , if and only if  $P(z)$  has no real root lying in the case  $n = 3$  follows.

Mathematical Reviews.

polynomials. Czechoslovak Math. J. 1(76), 5-17

$\sum a_k u^{k-1}, a_1 = 1, |a_k| > 0$ , con-

$$z^{n-1} + \sum b_k z^{k-1} P_{k-1}(u) = 0,$$

$$(1.2) \quad (-1)^r \binom{k-r-1}{r} u^{k-r-1}$$

$2(n-1)$  be the resultant of  $P(z)$ . It is proved that  $P(z)$  is schlicht if  $R(u) > 1$ , if and only if  $R(u)$  does not vanish identically.

2. Detailed discussion  
Date: (Washington, D. C.)

ol No. *(Signature)*

KOSSLER, V.

X-ray microscopy. Dos. such. fiz. no. 6:189-199 '62.  
(MIRA 16:1)

(X-ray microscope)

KUJAWSKA, Aleksandra; MYSŁAK, Zdzisław; KOSSMANN, Stefan

Diagnostic difficulties in cases of co-existing pneumoconiosis  
and pulmonary neoplasms. Polski tygod.lek. 15 no.22:825-828  
30 My '60.

1. Z II Kliniki Chorob Wewnętrznych Sz.A.M. i Działu Klinicznego  
Instytutu Medycyny Pracy w Przemysle Węglowym i Hutniczym w  
Zabrzu; kierownik: prof. dr med. W Zahorski.

(PNEUMOCONIOSIS compl)  
(LUNG NEOPLASMS compl)

KOSMIDER, Stanislaw; TARMAS, Jozef; KOSSMANN, Stefan; PODKOMKA, Jozef

Measurement of pH in situ in the upper part of the digestive system. Polski tygod.lek. 15 no.29:1104-1106 18 Jl '60.

1. Z II Kliniki Chorob Wewnętrznych Sz. A.M. w Zabrzu; kierownik:  
prof. dr med. Witold Zahorski  
(ESOPHAGUS physiol)  
(STOMACH physiol)  
(HYDROGEN ION CONCENTRATION)

SROCZYNISKI, Jan; KOSSMANN, Stefan

On a possibility of conservative therapy in mesenteric infarction.  
Polski tygod. lek. 16 no.35:1358-1359 28 Ag '61.

1. Z II Kliniki Chorob Wewnętrznych Sz. A.M. w Zabrzu; kierownik:  
prof. dr med. Witold Zahorski.

(MESENTERY dis)

KOSMIDER, Stanslaw; PIEKARSKI, Boleslaw; KOSSMANN, Stefan

Evaluation of Parri's test in differentiating pneumoconiosis from pneumoconiosis-tuberculosis. Polski tygod.lek. 15 no.38:1449-1450  
19 S '60.

1. Z II Kliniki Chorob Wewnetrznych Sl.A.M. i z Dzialu Klinicznego  
Instytutu Medycyny Pracy w Przemysle Weglowym i Hutniczym w Zabrze;  
kierownik: prof. dr med. Witold Zahorski.

(PNEUMOCONIOSES urine)

(TUBERCULOSIS PULMONARY urine)

SKOCZYNISKI, Jan; KOSSMANN, Stefan; KUSMIERSKI, Stanislaw

A case of bronchial rupture after blunt injury of the thorax.  
Polski tygod.lek. 15 no.51:1977-1979 19 D '60.

l. Z II Kliniki Chorob Wewnętrznych; kierownik: prof. dr W.Zahorski  
i z II Kliniki Chirurgicznej Sz. A.M. w Zabrusu; kierownik: prof.dr  
J.Gasinski.

(BRONCHI wds & inj)

POLAND

Aleksandra KUJAWSKA, Stefan KOSSMANN and Benon ZIELEZNIK, Second Clinic of Internal Medicine of the Silesian College of Medicine (II Klinika Chorob Wewnętrznych Śląskiej AM [=Akademii Medycznej]); and Clinical Department of the Institute of Occupational Medicine for the Coal and Mining Industry in Zabrze (Dział Kliniczny Instytutu Medycyny Pracy w Przemyśle Węglowym i Hutniczym w Zabrzu); Head (kierownik) Prof Dr Witold ZAHORSKI.

"Functional Respiratory Tests as Criterion of Effectiveness of Bronchodilator Drugs."

Warsaw, Polski Tygodnik Lekarski, Vol 17, No 46, 12 Nov 1962; pp 1782-1785.

Abstract [English summary modified]: Spirometric studies in 20 asthmatic men (while free of dyspnea) following 0.3 mg. epinephrine s.c., 240 mg. ephyllin aerosol or i.v.; 5 mg. isoproterenol ("Euspiran") aerosol or 25 mg. hydrocortisone. Epinephrine, isoproterenol and ephyllin were most effective, depending on the criteria. Table, 3 diagrams, 4 Polish and 20 Western references.

1/1

KOSMIDER, Stanislaw; KOSSMANN, Stefan

Serum muco- and lipoproteins in acute intoxication with mercury salts in rabbits. Postepy hig.med.dosw. 17 no.6:777-779 N-D'63

1. Z Kliniki Chorob Wewnetrznych i Zawodowych Slaskiej AM w Zabrzu; kierownik: prof.dr. W.Zahorski.

POLAND

JONDERKO, Gerard, PIETRASZEK, Felicja, and KOSSMANN, Stefan,  
Second Clinic of Internal Diseases (II Klinika Chorob Wewnetrznych), Sl.AM [Slaska Akademia Medyczna, Silesian Medical Academy] [in Zabrze] (Director: Prof. Dr. med. Witold ZAHORSKI)

"Hemorrhagic Changes of the Skin in Diabetes, Complicated with Focal Inflammatory States, Report of Five Cases."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 23, 3 Jun 63,  
pp 825-829

Abstract: [Authors' English summary] Authors describe five (5) cases of allergic skin vaculitis of the Ruiter type in diabetic patients with focal inflammatory states, and discuss the pathogenesis and treatment of these conditions. There are 19 references, of which seven (7) are Polish and six (6) each in German and Western sources.

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Value of various statistical methods for calculating the maximum expiration curve. Pol. tyg. lek. 18 no.33:1215-1217  
12 Ag '63.

1. Z Kliniki Chorob Wewnetrznych i Zawodowych Sl. AM w Zabrzu;  
kierownik: prof. dr Witold Zahorski.  
(RESPIRATORY FUNCTION TESTS)

KUZNIARZ, Jerzy; KOSMANN, Stefan

A case of congenital hemorrhagic angiomaosis (Rendo-Klentz disease) associated with epilepsy. Pol. tyg. lek. 19 no.400  
1538-1539 5 0<sup>o</sup>64

1. z Kliniki Otolaryngologicznej Śląskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. Tadeusz Gajypek) i z Kliniki Chorób Wewnętrznych i Zawodowych Śląskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. Witold Zahorski).

KOSSMANN, Stefan

Chronic bronchitis in coal miners. Pol. tyg. lek. 20 no.21:  
765-767 24 My '65.

1. Z Działu Klinicznego Instytutu Medycyny Pracy w Przemyśle  
Węglowym i Hutańskim w Zabrzu (Kierownik: prof. dr. med.  
Witold Zahorski).

KOSSMANN, Stefan; PIETRASZEK, Felicja; SLOMINSKA-PETELINÉ, Teresa

Effect of chlorpropamide on the blood coagulation system in patients with diabetes mellitus associated with arteriosclerosis. Pol. arch. med. wewnetr. 35 no.4:473-475 '65.

1. Z Kliniki Chorob Wewnętrznych i Zawodowych Śląskiej AM  
(Kierownik: prof. dr. med. W. Zahorski) i z Wojewódzkiej  
Przychodni dla Chorych na Cukrzyce w Zabrzu (Kierownik:  
dr. med. F. Pietraszek).

SROCZYNISKI, Jan; KOSSMANN, Stefan

Effect of lead poisoning on the haptoglobin level. Pol. arch.  
med. wewnetr. 35 no.6:827-829 '65.

1. Z Kliniki Chorob Wewnętrznych i Zawodowych Śląskiej Akademii  
Medycznej w Zabrzu (Kierownik: prof. dr. med. W. Zahorski) i z  
Działu Klinicznego Instytutu Medycyny Pracy w Przemysle Węglowym  
i Hutniczym w Zabrzu (Dyrektor: prof. dr. med. W. Zahorski).

SŁOMIŃSKA-PLĘSIENZOWA, Teresa; PIETRASZEK, Felicja; KOESENKO, Stefan

Effect of chlorpropamide on certain indices of arteriosclerosis in diabetic patients. Pol. arch. med. wewnet. 35 no.7:981-987 1965.

1. Z Kliniką Chorób Wewnętrznych i Zawodowych Śląskiej AM  
(Kierownik: prof. dr. med. W. Zahorski) oraz z Wojewódzkiej  
Przychodni dla Chorych na Cukrzycę przy Klinice Chorób  
Wewnętrznych i Zawodowych Śląskiej AM.

KUJAWSKA, Aleksandra; KOSSMANN, Stefania

Serum seromucoid level in silicosis and silicotuberculosis.  
Pol. arch. med. wewn. 35 no.8:1237-1240 '65.

1. Z Działu Klinicznego Instytutu Medycyny Pracy w Przemyśle  
Węglowym i Hutniczym w Tarnowie (Kierownik: prof. dr. med.  
W. Zahorski).

KOSSOBOKAYA, A.G.; SHUTOV, V.D.

Second Conference on the Physical Methods of the Study of Minerals  
in Sedimentary Rocks. Lit. i pol. iskop. no. 3:147-152 My-Je '65.

I. Geologicheskiy institut AN SSSR, Moskva. (MIRA 18:10)

GERASIMOV, M.A.; KISHKOVSKIY, Z.N.; SAKHAROVA, T.A.; KOSSOBUDSKAYA,  
N.S.; ADAMSON, N.F., otv. za vyp.; LANKAU, Ye.P., otv. za  
vyp.; MANVELOVA, Ye.S., telkhn. red.

[Thermal processing of Moldavian wines] Termicheskaiia ob-  
rabotka moldavskikh vin. Moskva, TSentr. in-t nauchno-  
tekhn. informatsii pishchevoi promyshl., 1963. 14 p.  
(MIRA 17:4)

KOSOBUDZKI, Stanislaw, mgr. inz.

Transducters. Wiad elektrotechn 30 no.2:40-43. F '62.

KOSOBUDZKI, Stanislaw, mgr.inz.

A new system of interior installations of low voltage. Wiad  
elektratechn 30 no.6:208-209 Je '62.

KOSSOBUDZKI, St., mgr inz.

Electric household installations in casings hidden in fillets.  
Wiad elektrotechn 30 no.9:311-313 S '62.

1. Instytut Organizacji i Mechanizacji Budownictwa, Warszawa.

KOSOBUDZKI, Stanislaw, mgr inz.; LICHNICKI, Jozsef, mgr inz.

Electric power supply development of building grounds.  
Wiad elektrotechn 33 no.10:295-297 O '64.

1. Department of Electric Power Management and Fuels,  
Institute of Building Mechanization and Organization,  
Warsaw.

KOSSOBUTSKIY, V. I.

"Analysis of the Development of the Instincts of Food Hunting  
and Self-Preservation in the Ontogenesis of Some Carnivorous Ani-  
mals." Sub 24 Sep 51, Moscow Fur and Pelt Inst.

Dissertations presented for science and engineering degrees in  
Moscow during 1951.

SO: Sum, No. 480, 9 May 55

KOSSOBUTSKIY, V. I.

Study of the action of organic phosphorus insecticides on the grain bug Eurygaster integriceps Put. with the aid of tagged atoms. Zool. zhur. 34 no.4:800-805 Jl-Ag '55. (MIRA 8:9)

1. Laboratoriya morfologii bespozvonochnykh Instituta morfologiil zhivotnykh Akademii nauk SSSR  
(Insecticides)

KOSSOV, B.B.

Peculiarities in the mastering of elementary algebraic knowledge  
by students with different typological correlations between the  
first and second signal system. Vop. psichol. 2 no.4:116-128  
Jl-Ag '56. (MLRA 9:10)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR,  
Moskva.  
(Conditioned response) (Algebra--Study and teaching)

KOSSOV, B.B.

"Problems in the higher nervous activity of normal and abnormal children." Vop. psichol. 4 no.2:153-161 Mr-Ap '58. (MIRA 11:5)  
(Child study) (Psychology, Physiological)

KOSSOV, B.B.

Some methods contributing to the discernment of the essential  
characteristics of perceived objects [with summary in English].  
Vop. psikhologii 6 no.1:135-144 Ja-F '60. (MIRA 13:6)

1. Institut psichologii AN RSFSR, Moskva.  
(Perception)

KOSSOV, B.B.; KOZINA, T.M.; BARDIN, K.V.; STRAKHOV, I.V.

Reviews and bibliography. Vop. psichol. 11 no.3:165-182 My-Je '65.  
(MIRA 18:7)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR, Moskva  
for Kossov, Bardin). 2. Kafedra psikhologii Odesskogo universiteta  
(for Kozina). 3. Pedagogicheskiy institut, Saratov (for Strakhov).

KOSSOV, F.F., inzh.; DAVYDOV, V.N., inzh.

From practices of the a.c. electrification of railroads. Zhel.  
dor.transp. 44 no.6:41-46 Je '62. (MIRA 15:8)

1. Nachal'nik Gosudarstvennogo proyektno-izyskatele'skogo instituta  
po proyektirovaniyu elektrifikatsii dorog i energeticheskikh  
ustanovok (for Kossov). 2. Glavnnyy spetsialist Gosudarstvennogo  
proyektno-izyskatele'skogo instituta po proyektirovaniyu  
elektrifikatsii dorog i energeticheskikh ustanovok (for Davydov).  
(Railroads--Electrification)

KOSSOV, G.Ya.

The MP-4 recording microphotometer. Izv. AN SSSR. Ser. fiz.  
19 no.1:56-57 Ja-F '55. (MIRA 8:9)  
(Spectrum analysis) (Spectrometer)

BABENKO, Valeriy Sergeyevich; PYALIK, G.I., retsenzent;  
KOSsov, G.Ya.. nauch. red.; PIKALEYEVA, Ye.D., red.

[Optics of television systems] Optika televizionnykh  
ustroistv. Moskva, Izd-vo "Energiia," 1964. 255 p.  
(MIRA 18:1)

SOV/137-59-2-4436

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 300 (USSR)

AUTHOR: Kossov, K. V.

TITLE: Introduction of Progressive Technological Heat-treatment Processes  
(Vnедрение прогрессивных технологических процессов термообработки)

PERIODICAL: V sb.: Materialy Soveshchaniya glavn. metallurgov z-dov i in-tov  
avtomob. prom-sti. Nr 3. Moscow, 1958, pp 6-15

ABSTRACT: The author enumerates measures taken by the Gorkiy automobile plant in 1956 in order to increase the capacity of the heat-treatment shops, the development and introduction in them of new technological processes, mechanization of technological processes and of the heretofore manual labor in auxiliary operations. Some of these measures are as follows: A more extensive use of gas carburization (C) and changes in the structure of the retort of gas-C furnaces of the Ts-105 and "Heavy-duty" types, which raised the efficiency by 40%; an additional substitution of high-frequency-current hardening for C for 8 more types of machine parts (with a simultaneous substitution of St40 for St40Kh and 15Kh steels and organizing of heat-treatment).

Card 1/2

SOV/137-59-2 4436

Introduction of Progressive Technological Heat-treatment Processes

sections in the continuous-process machining lines) thus eliminating transportation, decreasing labor consumption appreciably, and producing an approximate yearly saving of 700,000 rubles.

L. F

Card 2/2

KOSSOV, M.A.

Raschet struinykh kuskovykh ustroistv dlia turboreaktivnykh dvigatelei. Moskva,  
Oborongiz, 1949.

Title tr.: Design of jet section installations for turbojet engines.

NCF

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress  
1955.

KOSSOV, M. A., Engineer

"Investigation of Gas-Turbine Combustion Chambers." Sub 12 Nov 51,  
Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze

Dissertations presented for science and engineering in  
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Kossov, M. A.

USSR/Engineering - Piston design

Card 1/1 : Pub. 12 - 5/16

Authors : Kossov, M. A.

Title : Concerning the selection of a piston stroke in respect to cylinder diameter

Periodical : Avt. trakt. prom. 6, 14-17, June 1954

Abstract : Tabulations are given for calculating piston strokes in respect to cylinder diameter, size of chamber, and the number of cylinders. Graphs; diagrams.

Institution : .... Nauchnyy avtomotornyy institut.

Submitted : ....

KOSsov, M.A., kandidat tekhnicheskikh nauk.

Effect of the ratio of piston stroke to cylinder diameter upon  
the volumetric dimensions of an engine. Avt.trakt.prom. no.12:  
4-8 D '54. (MLRA 8:2)

1. Nauchnyy avtomotornyy institut.  
(Gas and oil engines--Design)

KOSsov, M.A., kandidat tekhnicheskikh nauk.

Review of the book by V.K.Koshkin and B.R.Levin "Engines with free-moving pistons". Avt. i trakt. prom. no.10:29-32 O '55.

1.Nauuchnyy avtomotornyy institut.  
(Automobiles--Engines) (Koshkin, V.K.) (Levin, B.R.)

DUSHKEVICH, A.; KOSsov, M.

"TurbonAMI-053," a Soviet-built gas-turbine motorbus. Za rul. 18  
no.4:8-9 Ap '60. (MIRA 13:8)

1. Nauchnyy rukovoditel' i glavnnyy konstruktor rabot Nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo instituta po gazoturbinnym avtomobilyam (for Dushkevich). 2. Glavnnyy konstruktor avtomobil'nogo gazoturbinnogo dvigatelya "TurbonAMI-053" (for Kossov).  
(Motorbuses)

KOSSOV, M.A., kand.tekhn.nauk; KURCHMAN, B.S.

Materials for heated parts of gas-turbine automobile engines:  
Avt.prom. 27 no.10:29-33 O '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy in-  
stitut.  
(Automobiles, Gas turbine)

S/262/62/000/007/004/016  
1007/1207

AUTHOR: Kossov, M. A. and Kurchman, B. S.

TITLE: Material for "hot" components of automobile gas turbine engines

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustavovki, no. 7, 1962, 36, abstract 42.7.158. "Avtomob. prom-st", no. 10, 1961, 29-33

TEXT: Suggestions are made in the choice of material for "hot" components of automobile gas turbine engines. These suggestions were checked in practice for the НАМИ (NAMI) 053 gas turbine of 350 bhp. Due to difficulties in machining high-temperature alloys, it is better to cast stator and rotor heads as well as the ring-shaped parts of the stator heads, of high-temperature alloys by the lost-wax process, which permits the use of alloys having higher temperature-strength. The following alloys are recommended: for rotor blades ВЛ7-20 (VL7-20), ВЛ7-45Y (VL7-45U), АНВ-300 (ANV-300), ЖС-6 (ZhS-6), and ЖС-6К (ZhS-6K); for turbine discs ЭИ-415 (EI-415); EI-481, and EI-787; for stator blades EI-417, VL-7-20, VL7-45U; for components of the combustion chamber and exhaust manifolds ЭЯ1Т (EYALT); EI-657, ЭП-26 (EP-26), and EI-417.

[Abstracter's note: Complete translation.]

Card 1/1

KOSSOV, M.A., kand.tekhn.nauk

Present state and the outlook for the development of motor-vehicle  
gas-turbine engines abroad. Avt.prom. 30 no.1:40-47 Ja '64.  
(MIRA 17:3)

KOSSOV, M.A.; SUL'KOV, Yu.G., prof., red.

[Gas-turbine engines for automobiles] Vystoedil'ye  
gazoturbinnye dvigateli. Moscow, Mashinostroyenie, 1964.  
360 p. (MFA 18:1)

8(2)

AUTHOR:

Kossov, O. A., Engineer

SOV/105-59-5-14/29

TITLE:

Operation of a Semiconductor Key Under Different Loads (Rabota poluprovodnikovogo klyucha pri razlichnom kharaktere nagruzki)

PERIODICAL:

Elektrichestvo, 1959, Nr 5, pp 60-65 (USSR)

ABSTRACT:

The industry in the USSR produces at present big semiconductor triodes of the junction type (SCT) (Ref 1). Examples for the application of such triodes as keys are given in the papers (Refs 3,4,5,6,7). The specific feature of the operation of the SCT in regulating systems of electric machines is the fact that in the load circuit of the triode the inductance and the counter emf can generally be present besides the effective resistance. The application of the SCT as a controlled key is described in detail in the paper (Ref 3). Only the principal relations of this type of operation are put forward here. Figure 1b shows the current voltage characteristic for the triode of the P4B type which is connected according to a circuit diagram with common emitter. Two points are interesting in the load curve of this figure: point M where the triode is cut off, the voltage  $U_n$  of the feeding source is set to the triode, and

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SOV/105-59-5-14/29

Operation of a Semiconductor Key Under Different Loads

an unimportant current flows through the triode (state of cutting off), and point N where the triode is fully open, the voltages of the source are set to the triode, an intense current flows through the triode, and the voltage drop in it is unimportant (state of saturation). The principal characteristics of SCT are compared with those of the linear amplifiers. The advantage of the operation with one commutation is the circumstance that the dependence of the triode parameters on the surrounding temperature is of no importance. The transition from M to N, and vice versa, proceeds according to the load curve, and the momentary scattering power can be high. For this reason, the transition process in the commutations is investigated here. The transition process of the SCT in a circuit diagram with common emitter is represented under conditions which are similar to a short circuit in the collector circuit. Formula (7) is derived for the evaluation of the maximum scattering power of the SCT. The characteristic lines in figure 1b can be approximated for analyses. For this purpose, it is assumed that the triode constitutes an ideal key shunted by an ideal discharge resistance: figure 5.- It is shown here that in

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Operation of a Semiconductor Key Under Different Loads

SOV/105-59-5-14/29

operation with continuous currents (the most important case in using the SCT in regulating systems of electric machines), the efficiency of the triode becomes much worse. To make possible an operation of the SCT with high efficiency in current circuits with inductive load, the possibility of passage of the load current through the "cut-off" triode must be excluded. This can be achieved by 3 ways. They are described here. In all examples given for these 3 ways the efficiency is just as high as in the operation of the SCT with pure real load. There are 10 figures and 9 references, 3 of which are Soviet.

ASSOCIATION: Institut avtomatiki i telemekhaniki Akademii nauk SSSR (Institute of Automation and Telemechanics of the Academy of Sciences, USSR)

SUBMITTED: October 28, 1958

Card 3/3

9.2560

69816

AUTHOR: Kossov, O.A. (Moscow)S/024/60/000/01/026/028  
E081/E335TITLE: Switching Transistors Joined in Series

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 1, pp 169-172 (USSR)

ABSTRACT: After a lengthy preamble on the advantages of transistors, the author turns to the need to work junction transistors in series, e.g. as in the pulse-width modulation system of Figure 1. The speed of switching is controlled by the maximum permissible power dissipation. Figure 2 shows leakage current as a function of collector voltage for three different specimens of the same kind of triode; Figure 3 does the same but the variable is here temperature (two different sets of working conditions are used). Figure 4 shows a switching circuit designed to handle large powers reliably, even though the transistors differ slightly in characteristics. There are 4 figures and 6 references, 2 of which are English and 4 Soviet.

SUBMITTED: May 29, 1959  
Card 1/1

4

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825130007-5"

9.4310 (and 1143, 1160)

S/110/60/000/007/002/005  
E041/E521AUTHOR: Kossov, O.A., Engineer

TITLE: Static Characteristics of a Direct Current Drive with Transistor Pulse Amplifier

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.7, pp.28-34

TEXT: The speed of a d.c. motor may be controlled by periodically interrupting the supply. The proposed circuit differs from the conventional arrangement by having a diode connected across the armature of the motor. The input signal is applied to a pulse-width modulator driving a switching transistor in series with the armature. The analysis of the operating characteristic uses two simple equivalent circuits corresponding to the conducting and non-conducting states of the diode. Graphs are given of a static open circuit characteristic and of an experimental characteristic of the system with negative velocity feedback. Speed is plotted against armature current for various control voltages. There are 5 figures.

SUBMITTED: March 21, 1960

Card 1/1

4

9.2530 also 1139

27984  
S/194/51/000/004/019/052  
D249/D302

AUTHOR: Kossov, O.A.

TITLE: Combined magnetic and transistor power amplifiers

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,  
no. 4, 1961, 12, abstract 4 V81 (V sb. Avtomat. up-  
ravleniye, M., AN SSSR, 1961, 386-392)

TEXT: Power amplifiers consisting of a combination of transistor and magnetic amplifier are dealt with. There are two possible connections: 1) The transistor amplifier constitutes the input stage and acts as a pre-amplifier for the output stage formed by the magnetic amplifier; and 2) The relative positions of the amplifiers are reversed. The first circuit affords a considerable increase in the amplification factor for a given speed of response. The size and weight of the unit and also its efficiency depend mainly on the output stage, i.e. the magnetic amplifier. The second circuit is advantageous in that it offers the possibility of combining in the

44

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Combined magnetic and transistor...

27984  
S/194/61/000/004/019/052  
D249/D302

input stage of a number of signals. The disadvantage lies in the difficulty in applying the linear transistor amplifier for the output stage. The use in the output of transistors working under switched conditions, allows for a considerable increase in the efficiency with a simultaneous decrease in weight and dimensions of the unit. Two circuit diagrams of the second type, given by the author, are presented and their advantages over the well known Collins' circuit are described. 6 references. Abstracter's note: Complete translation *44*

Card 2/2

9.25/0

S/194/62/000/001/055/066  
D201/D305

AUTHORS: Kossov, O. A. and Shepenina, R. F.

TITLE: Phase-controlled switching transistor power amplifiers

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 1, 1962, abstract 1-7-1858 (Vestn. elektropromisti,  
1961, no. 7, 52-58)

TEXT: Phase-controlled power amplifiers using switching transistors are considered. These a.c. supply amplifiers permit the design of either balanced or unbalanced output d.c. or a.c. circuits, operating as switches and which produce a wide range of smooth load voltage variations. The requirements for an arrangement controlling the angle switching-in are considered, together with possible variants of the amplifiers and the comparative analysis of their characteristics. The working of the possible amplifier circuits into different loads is analyzed. It is shown that the considered amplifier circuits consist actually of 3 stages (PA - multivibrator - output stage); each stage has a considerable gain, but only the PA intro-

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825130007-5"

S/194/62/000/001/055/066  
D201/D305

Phase-controlled switching ...

duces a delay. This is why for a large overall power gain  $K = 10^5$  -  
 $10^7$ , a fast response over 1-3 half-periods of the supply source is  
possible. 4 references. /-Abstracter's note: Complete translation./

Card 2/2

S/196/62/000/006/012/018  
E194/E154

AUTHORS: Kossov, O.A., and Manychkina, Ye.A.

TITLE: A reversing d.c. drive with impulse speed control by transistors

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no. 6, 1962, 2, abstract 6 K4. (Vestn. elektropromsti, no. 10, 1961, 19-23)

TEXT: The static characteristics of a reversing drive with d.c. motor supplied from semiconductor amplifiers and operating as a 'key' are analysed. The motor armature is connected across a bridge formed by four semiconductor triodes shunted by diodes. The diodes are needed because when the operating triode saturates it passes in the reverse direction a current 2-3 times smaller than in the forward direction. By connecting in pairs the triodes on opposite arms of the bridge the motor can be reversed, steady current conditions can be employed and regenerative braking used. The triodes are controlled by a pulse width modulator consisting of two multi-vibrators with

Card 1/4

✓

A reversing d.c. drive with ...

S/196/62/000/006/012/018  
E194/E154

armature current pulsation. Curves are given of the relationship between the utilization factor of the motor and the armature current for various values of pulse density. It is indicated that to reduce the amplitude of current pulsation in the armature circuit it is better to use three multi-vibrators rather than two and to alter the drive control circuit accordingly. The new circuit will apply voltage to the armature in the form of unipolar impulses of controlled density. This will give a significant reduction in the amplitude of the current pulsation in the armature circuit down to a value which is inherent in non-reversing circuits. The formulae were checked by making tests on a laboratory model of a drive consisting of a motor type MI32T (MI32T) of 110 V, 0.76 kW, 2300 r.p.m. operating at up to 30% rated output and up to 0.3 rated speed. This is because the triodes have a rated voltage of 30-35 V. The model used power triodes type P208 (P208) with diodes D-305 (D-305). The multi-vibrators utilized triodes P203 (P203). The modulation frequency was 700 c/s. There is a good agreement ✓✓

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A reversing d.c. drive with ...

S/196/62/000/006/012/018  
E194/E154

between the experimental and calculated mechanical characteristics  
of the drive and oscillograms of continuous and interrupted  
braking currents in the armature circuit.

2 literature references.

[Abstractor's note: Complete translation.]

Card 4/4

9,2530 (1068,1147,3004)

33131  
S/105/61/000/012/005/006  
E192/E382

AUTHORS: Kossov, O.A. and Khasayev, O.I., Engineers

TITLE: Pulse-width modulated power amplifiers based on switching transistors

PERIODICAL: Elektrichestvo, no. 12, 1961, 69 - 75

TEXT: The circuits described are in the form of a three-stage amplifier consisting of a magnetic-amplifier input stage, an intermediate stage and an output stage. The magnetic amplifier performs the function of converting the control signal into a phase-shift (saturation angle of the cores). The intermediate stage consists of synchronized multivibrators which form rectangular pulses of variable mark-to-space ratio or phase-shift; the pulses produced by these multivibrators determine the average voltage at the load fed by the output stage. A complete circuit of a non-reversible amplifier with a DC output is illustrated in Fig. 1a. The driving multivibrator MB<sub>1</sub> of the system consists of two transistors T<sub>M1</sub> and T'<sub>M1</sub>, a transformer T<sub>p1</sub> and a saturating transformer T<sub>p0</sub>, which

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33131  
S/105/61/000/012/005/006  
E192/E382

Pulse-width modulated power ....

results in an improvement in the rise time of the output voltage of the multivibrator. The second multivibrator MB2 is based on transistors  $T_{M2}$  and  $T'_{M2}$  and a transformer  $T_{p2}$ , in which a positive feedback is provided by the windings  $w_o$ . The second multivibrator is triggered by MB1 and its natural oscillation frequency is slightly lower than that of the driver multivibrator. Synchronization of MB2 is performed by the winding  $w_3$  of the transformer  $T_{p1}$ , which is connected between the base of the transistors  $T_{M2}$  and  $T'_{M2}$  (via the condenser C). The phase-control of the output voltage of MB2 is performed by the magnetic amplifier MY1, which is based on magnetic cores having a rectangular hysteresis loop and which is connected as a half-cycle circuit between the emitter and the base of the transistors  $T_{M2}$  and  $T'_{M2}$ . The magnetic amplifier operates as a full-cycle system with internal feedback. The AC circuits of the magnetic amplifier are supplied by the winding  $w_4$  of the transformer  $T_{p1}$ . In some

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33131

S/105/61/000/012/005/006

E192/E382

Pulse-width modulated power ....

circuits it is necessary to employ three multivibrators in the modulator; in this case, the multivibrator MB<sub>3</sub> is identical with MB<sub>2</sub> and it is controlled by a magnetic amplifier MY<sub>2</sub>. The actual DC amplifier is based on two power transistors T<sub>1</sub> and T<sub>2</sub> (see Fig. 1a), which are connected in series. These transistors are controlled by separate output circuits B<sub>1</sub> and B<sub>1'</sub> of the pulse-width modulator. The load Z<sub>H</sub> of the stage is shunted by a diode in order to eliminate any overshoots if the load is inductive. The output circuits of the modulator which drive the amplifier (Fig. 1a) consist of two rectifiers connected against each other, which are fed with a difference or a sum of the rectangular voltages from the secondary windings w<sub>2</sub> of the transformers T<sub>p1</sub> and T<sub>p2</sub>. Since the input characteristic of the transistor is nonlinear, a resistance r<sub>1</sub> is connected in the circuit of the rectifier I. On the other hand, a greater resistance r<sub>2</sub> is connected

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33131  
S/105/61/000/012/005/006  
E192/E382

Pulse-width modulated power ....

at the output of the rectifier II . Each stage of the amplifier has a large gain and only the magnetic amplifier can introduce a signal delay. The overall response time of the amplifier is 1 - 3 half-cycles of the drive multi-vibrator, the overall power gain being of the order of

$10^5 \sim 10^8$  . The operation of the system is described in some detail and four other amplifier circuits are considered. There are 7 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc. The English-language reference mentioned is: Ref. 1: H.W. Collins - Trans. AIEE, 1956, v.75, p.585.

ASSOCIATION: Institut avtomatiki i telemekhaniki Komiteta po avtomatizatsii i mashinostroyeniyu  
(Institute of Automatics and Telemechanics of the Committee of Automation and Machine-building)

SUBMITTED: August 2, 1961

Card 4/4

89x8

9,2530 (also 1031)

S/103/61/022/002/009/015  
B019/B060

AUTHORS: Kossov, O. A., Manychkina, Ye. A. (Moscow)

TITLE: A reversible d-c magnetic amplifier of an high efficiency

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 2, 1961, 231-237

TEXT: The reversible d-c magnetic amplifier shown in Fig. 1 consists of two irreversible amplifiers connected with two triodes over a load. The properties of this circuit are characterized as follows: 1) The input circuit of the triode has a nonlinear characteristic whose effect can be suppressed by virtue of the no-load current and the considerable amplification at slighter collector currents. 2) The cut-off voltage at the triode input prevents the breakdown voltage from being reduced. 3) The small current amplification factors of the triodes heretofore supplied by the industry do not permit the use of magnetic amplifiers with large current amplification factors. Major importance is attached to an analysis of the control circuit of the magnetic amplifier, which is performed on the basis of the oscillograms shown in Fig. 4. The control coil current is described by three expressions given for the individual components thereof:

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S/103/61/022/002/009/015  
B019/B060

A reversible d-c magnetic ...

$i_{y1} = I_c = H_c l_{ot}/w_y = \text{const}$ , a component that remains constant during the entire excitation interval.  $i_{y2} = k_1 L_s di_{ps}/r_y dt$  ( $0 \leq \omega t \leq \gamma$ ) (5). This component adds to the former during commutation. The control coil current during the saturation interval:

$$i_{y3} = \frac{1}{r_y} (e_y + k_2 u_{\eta} (\omega t)) \quad (\alpha \leq \omega t \leq \pi) \quad (6).$$

The whole control coil current is made up from these components. Regarding the power circuits the result of analysis coincides precisely with that obtained earlier for magnetic amplifiers, where the control coil resistance was taken to be zero. The use of a capacity connected in parallel to the load is, however, inadmissible with these amplifiers, and three restrictions are noted for them: the variety of output current changes, the slight input resistance and the limited current and voltage amplification factors. Power amplifiers consist of an intermediate amplifier and an output stage, whereby some of the drawbacks can be eliminated. The calculation of the core is then discussed and structural problems are dealt with. There are 6 fig-

Card 2/5

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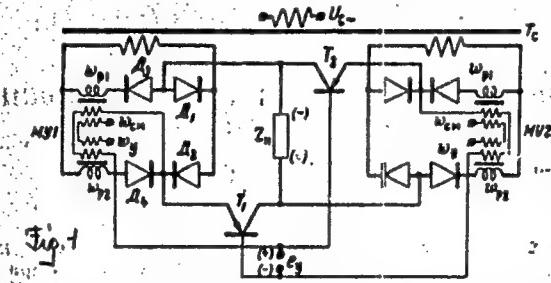
8/103/61/022/002/009/015  
B019/B060

### A reversible d-c magnetic ...

ures and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: June 21, 1960

Legend to Fig. 1: Diagram of a reversible d-c magnetic amplifier.



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B019/B060

A reversible d-c magnetic ...

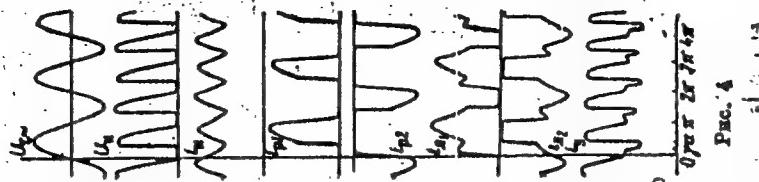


FIG. 4

Legend to Fig. 4: Oscillograms of the variable of the magnetic amplifier shown in Fig. 1.  $U_c$  mains voltage,  $U_H$  voltage on the load.  $i_H$  load current.  $i_{p1}$  and  $i_{p2}$  are the currents in the a-c coils.  $i_{A1}$  and  $i_{A2}$  are the valve currents.  $i_y$  is the control amperage resulting from three components. In the foregoing formulas  $H_c$  denotes the coercive force,  $l_{ct}$  is the mean length of the lines of force,  $w_y$  is the number of windings of the control coil,  $k_1$  is a coefficient which takes account of mutual induction,  $L_s$  is the inductance of the power coil in saturation,  $i_p$  the power current of the saturated coil,  $k_2$  the ratio between inductive resistance of the power coil and the load resistance,  $u_H(\omega t)$  the instantaneous value

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A reversible d-c magnetic ...

S/103/61/022/002/009/015  
B019/B060

of the feed voltage.

Card 5/5

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*Kussov, O.A.*

Vsego sbornikov o "vysokochastotnykh vymoshchivaniakh po elektronike i mehanicheskikh protsessakh" v masinostroyeniye i avtomatizirovannym elektrosvyazem i priemysle. SSSR. Minsk, 1959.

Electroprived i avtomatizatsiya priemysle: ustroystva; tsvety; osozvezdaniya (Electric Drive and Automation in Industrial Systems). Transactions of the Conference. Moscow, 1960. 470 p., 11,000 copies printed.

General Eds.: I.I. Petrov, A.D. Svetlov, and M.G. Chislitina. Eds.-I.I. Sod, and

E.P. Sil'veren' Prok. Msc., K.P. Voronin, and G.O. Larionov.

PROPSCH: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

CONTENTS: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the Third All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Central Planning Commission (State Planning Commission USSR), the CTR (Central Committee for Planning), the USSR Ministry of Machine Building and the Institute of Automation and Telemechanics (Institute of Radioelectronics and Mathematics) and the Institute of Mathematics and the Commission on Technology of Medicine (Institute of Mathematics and the Institute of Radiophysics and Mathematics). It was the purpose of the Editorial Board to review the reports in way which would ensure a relatively objective presentation of theoretical and practical problems relating to electric drives and automatic control of industrial processes used in various branches of industry. The basic problems of automated electric drives and their solution are outlined. The book also contains articles on other important scientific problems, including those with recommendations for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Numerous papers already published in journals or official publications have been considered and abridged, some which have appeared in Volume 7 of EEC Transactions are mentioned. Additional economic data of the papers are given. No personalities are named.

#### PART II. ELECTRIC DRIVE AND AUTOMATIC CONTROL

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TSOKANOV, V.V., inzh. (Moskva); KOSsov, O.A., kand.tekhn.nauk (Moskva)

Collectorless d.c. drive. Elektrichestvo no.1:22-26 Ja '63.  
(MIRA 16:2)  
(Electric motors, Direct current)

ACCESSION NR: AP4039561

S/0105/64/000/005/0034/0040

AUTHORS: Kossov, O. A. (Candidate of technical sciences); Tsokanov, V. V. (Engineer)

TITLE: Investigation of electric and thermal breakdowns of high-power transistors

SOURCE: Elektrichestvo, no. 5, 1964, 34-40

TOPIC TAGS: transistor, transistor switching, electric breakdown, thermal breakdown, junction breakdown

ABSTRACT: In view of the observed tendency to increase both the voltage and current ratings of transistors used for switching purposes, a detailed study was made of the conditions of thermal and electric breakdown in transistors with appreciable junction thickness. Analysis of the equivalent-circuit current-voltage characteristics leads to the following conclusion: 1. The breakdown voltage

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ACCESSION NR: AP4039561

of a grounded-emitter transistor with large collector current depends little on the operating conditions (temperature, bias, base-circuit resistance). 2. No secondary breakdown occurs in a switching transistor if the primary breakdown is prevented. 3. If operation under primary breakdown conditions is unavoidable (series connection, connection with center tap, etc.), the transistors must be protected with stabilizer tubes, which can simultaneously serve as shunting diodes. 4. Incomplete cutoff of the transistor is the result of thermal breakdown. 5. The conditions for the occurrence of thermal breakdown coincide with conditions for maximum power dissipation. 6. The usual determination of the thermal conditions on the basis of the maximum power dissipation and permissible junction temperature is inadequate and a supplementary check on the transistor breakdown strength is necessary. In the case of the P4B transistor, the estimated allowable junction temperature, 81.5C, agreed well with the actual breakdown temperature, 83C. Orig. art. has: 7 figures and 30 formulas.

Cord 2/3

ACCESSION NR: AP4039561

ASSOCIATION: Institut avtomatiki i telemekhaniki, Moscow (Institute  
of Automation and Telemechanics).

SUBMITTED: 23Sep63

DATE ACQ: 01Jun64

ENCL: 00

SUB CODE: EC

NR REF SOV: 005

OTHER: 008

Card 3/3

DOMANITSKIY, S.U., kand. tekhn. nauk (Moskva); KOSSOV, O.A., kand. tekhn. nauk (Moskva)

Study of a reversible half-cycle d.c. amplifier with regulated rectifiers. Elektrichestvo no.9:71-75 S '64.  
(MIRA 17:10)

KOSSOV, Oleg Alekseyevich; MOIN, V.S., inzh., rezensent;  
IL'INSKIY, N.F., kand. tekhn. nauk, nauchn. red.

[Transistor power amplifiers in switching operation]  
Usiliteli moshchnosti na tranzistorakh v rezhime pre-  
rekliuchenii. Moskva, Energiia, 1964. 303 p.  
(MIRA 17:12)

KOSSOV, O.A., kand. tekhn. nauk; TSOKANOV, V.V., inzh.

Special features of the operation of a low power synchronous  
motor fed by a transistorized inverter with regulated frequency.  
Elektrotehnika 35 no.11:57-59 N '64.

(MIRA 18:6)

BOYARCHENKOV, V.A., Head, Dept. of magnetic elements of automation and computer techniques, Institute of Mathematics and Cybernetics, Academy of Sciences of the USSR, Moscow, Russia.

Third international conference on the magnetic elements of automation and computer techniques held in Washington. Vest. AN SSSR 35 no. 8(72) Ag '65.  
(MTRA 18:8)

KHASAYEV, O.I., kand.tekhn.nauk (Moskva); KOSsov, O.A., kand.tekhn.nauk (Moskva)

Voltage regulation in a system consisting of a transistorized  
inverter and asynchronous motor. Elektrichestvo no.9:50-55 S '65.  
(MIRA 18:10)

ARUGYUNIAN, M.R., inzh. (Moskva); KOSSOV, O.A., kand.tekhn.nauk (Moskva)

Static characteristics of thyristor excited d.c. drives.  
Elektricheskoe no.12:58-63 D '65.

(TIR 18:12)

ACC NR: AM5013080

MONOGRAPH

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Kossov, Oleg Alekseyevich

Transistor power amplifiers in switching operation (Usiliteli moshchnosti na tranzistorakh v rezhime pereklyucheniya) Moscow, Izd-vo "Energiya", 1964. 303 p.  
illus., biblio. 20,000 copies printed.

TOPIC TAGS: power amplifier, transistorized amplifier, switching theory, transistor, volt ampere characteristic, automatic control, switching circuit

PURPOSE AND COVERAGE: This book deals with transistorized power amplifiers with switched mode of operation. It describes the specific character of the application of switching transistors in power amplifiers, advantages of a switched mode of operation, transistor characteristics at different volt-ampere characteristics, possible series and parallel connection of instruments, performance at various types of load, and transistor control methods. The text also describes the circuits of transistor power amplifiers with switched mode of operation and analyzes their characteristics, discusses the possible application of various devices in amplifiers for purposes of output stage control, and suggests a method for the calculation of amplifiers. The book is intended for specialists in automation and electronics, as well as for students taking courses in these fields. The author thanks V. S. Moin (engineer and book reviewer), and N. F. Il'inskiy (Candidate of Technical Sciences and scientific editor) for their valuable comments.

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UDC: 621.3.07 K 71

ACC NR: AM5013080

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SUB CODE: 09/ SUBM DATE: 01Dec64/ SOV REF: 121/ OTH REF: 039

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VARFOLOMEYEV, G.S., gornyy inzh.; KOSsov, P.A., gornyy inzh.

Intensity of dust formation depending on bore bit design. Gor.  
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? . Berezovskaya opytnaya nauchno-issledovatel'skaya stantsiya  
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Measures for keeping dust down more efficiently in wet drilling.  
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Instituta gigiyeny truda i professional'nykh zabolеваний AMN SSSR.  
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GALKINA, K.A., kand.med.nauk; TKACHEV, V.V., gornyy inzhener; KOSSOV, P.A.;  
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Effectiveness of settling dust with mist sprayers during  
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[The interbranch balance of production and production  
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DADAYAN, V.S.; KOSsov, V.V.; NEMCHINOV, V.S., akad., otv. red.;  
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KOSsov, V.V.

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NOVICHENKO, Ya.Z., inzh.; KOSSOV, Ye.V., inzh.

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Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21976

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Title : Obtaining Antigens from Bacteria of the Intestinal Group  
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Orig Pub: Tr. Mosk. n.-i. in-ta vakkasin i syvorotok, 1956, 8, 215-223

Abstract: No abstract.

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Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5221

immunizing effect as the whole vaccine. In intraperitoneal injection, the antigen dosage evidently has a greater significance, for with its decrease, the immunizing effect is also decreased. Practically, for testing the immunogenic effects of the prepared vaccine, the most suitable dosage is 0.5 ml of the preparation diluted ten times.

Card : 2/2

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